#6

SUBSTITUTE SEQUENCE LISTING

(1) GENERAL INFORMATION:

    (i) APPLICANT: Sriram, Subramaniam
             Nag, Bishwajit
             Sharma, Somesh D.

    (ii) TITLE OF INVENTION: Vaccination with Peptide of MHC Class II
        Molecules for Treatment of Autoimmune Disease

   (iii) NUMBER OF SEQUENCES: 4

    (iv) CORRESPONDENCE ADDRESS:
        (A) ADDRESSEE: Townsend and Townsend and Crew LLP
        (B) STREET: Two Embarcadero Center, 8th Floor
        (C) CITY: San Francisco
        (D) STATE: California
        (E) COUNTRY: USA
        (F) ZIP: 94111

    (v) COMPUTER READABLE FORM:
        (A) MEDIUM TYPE: Floppy disk
        (B) COMPUTER: IBM PC compatible
        (C) OPERATING SYSTEM: PC-DOS/MS-DOS
        (D) SOFTWARE: PatentIn Release #1.0, Version #1.30

    (vi) CURRENT APPLICATION DATA:
        (A) APPLICATION NUMBER: US 09/286,274
        (B) FILING DATE: 05-APR-1999
        (C) CLASSIFICATION:

   (vii) PRIOR APPLICATION DATA:
        (A) APPLICATION NUMBER: US 07/992,942
        (B) FILING DATE: 17-DEC-1992

   (vii) PRIOR APPLICATION DATA:
        (A) APPLICATION NUMBER: US 08/338,553
        (B) FILING DATE: 18-NOV-1994

   (vii) PRIOR APPLICATION DATA:
        (A) APPLICATION NUMBER: US 08/485,617
        (B) FILING DATE: 07-JUN-1995

  (viii) ATTORNEY/AGENT INFORMATION:
        (A) NAME: Apple, Randolph T.
        (B) REGISTRATION NUMBER: 36,429
        (C) REFERENCE/DOCKET NUMBER: 14058-29-3

    (ix) TELECOMMUNICATION INFORMATION:
        (A) TELEPHONE: (415) 576-0200
        (B) TELEFAX: (415) 576-0300

(2) INFORMATION FOR SEQ ID NO:1:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 18 amino acids
        (B) TYPE: amino acid
        (C) STRANDEDNESS:
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: peptide

    (ix) FEATURE:
        (A) NAME/KEY: Modified-site
        (B) LOCATION: 1
        (D) OTHER INFORMATION: /product= "OTHER"
                          /note= "Xaa = N-acetyl-alanine"

    (ix) FEATURE:
        (A) NAME/KEY: Modified-site
        (B) LOCATION: 18
        (D) OTHER INFORMATION: /product= "OTHER"
                          /note= "Xaa = Theoninamide"

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

Xaa Glu Tyr Tyr Asn Lys Gln Tyr Leu Glu Gln Thr Arg Ala Glu Leu   ,
1   5   10   15

Asp Xaa

(2) INFORMATION FOR SEQ ID NO:2:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 10 amino acids
        (B) TYPE: amino acid
        (C) STRANDEDNESS:
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: peptide

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

Tyr Tyr Asn Lys Gln Tyr Leu Glu Gln Thr
1   5   10

(2) INFORMATION FOR SEQ ID NO:3:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 20 amino acids
        (B) TYPE: amino acid
        (C) STRANDEDNESS:
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: peptide

    (ix) FEATURE:
        (A) NAME/KEY: Modified-site
        (B) LOCATION: 1
        (D) OTHER INFORMATION: /product= "OTHER"
                              /note= "Xaa = N-acetyl-asparagine"

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

Xaa Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Lys Arg
1   5   10   15

Ala Ala Val Asp
        20

(2) INFORMATION FOR SEQ ID NO:4:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 20 amino acids
        (B) TYPE: amino acid
        (C) STRANDEDNESS:
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: peptide

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Lys Arg
1   5   10   15

Ala Ala Val Asp
        20